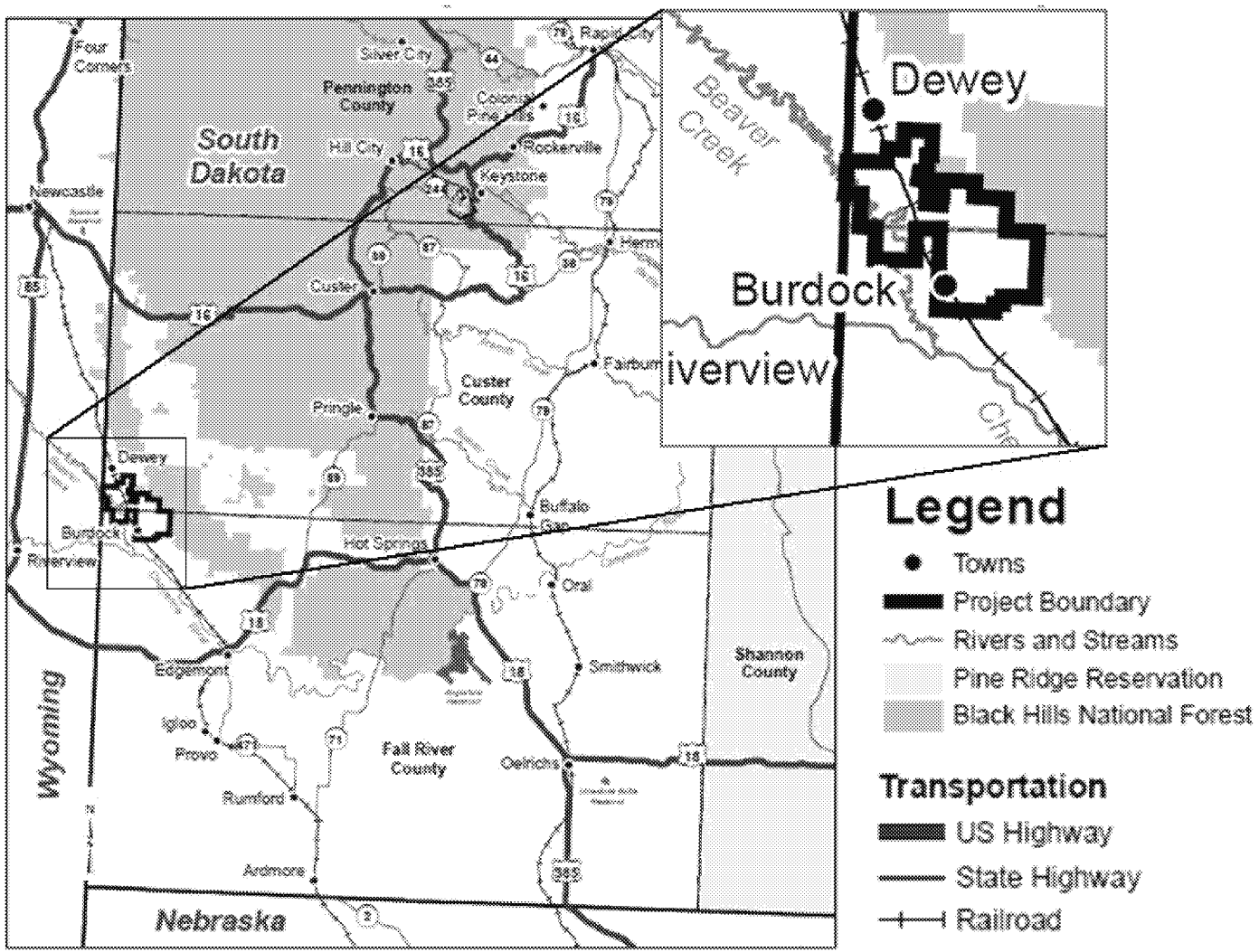
Figure 1

Dewey-Burdock Location Map



Dewey Burdock Proposed Class III UIC Wellfields, Aquifer Exemption Area and Deep Disposal Wells

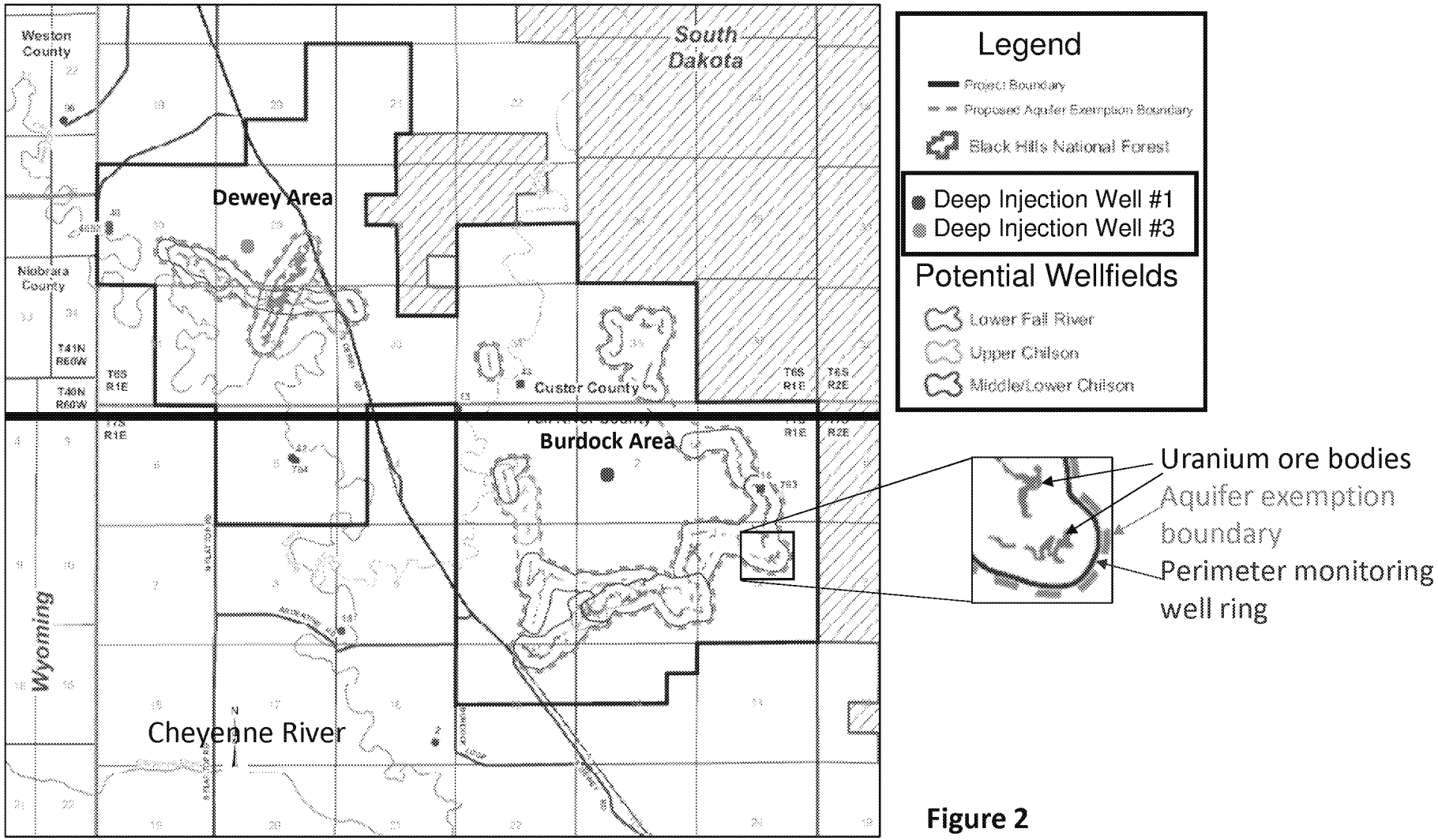


Figure 2

Excursion Monitoring

When the excursion indicators move out of the wellfield injection interval area and are detected at a perimeter monitoring well, the event is called an "excursion."

If an excursion is detected at a perimeter monitoring well, the monitoring frequency of the impacted well is increased to every week until the excursion plume is removed This is standard industry practice.

The Class III permit requires that the wells impacted by the excursion and the monitoring wells the nearest impacted monitoring wells are also sampled every week in order to determine early that an excursion plume may be expanding. This requirement is new to the industry.

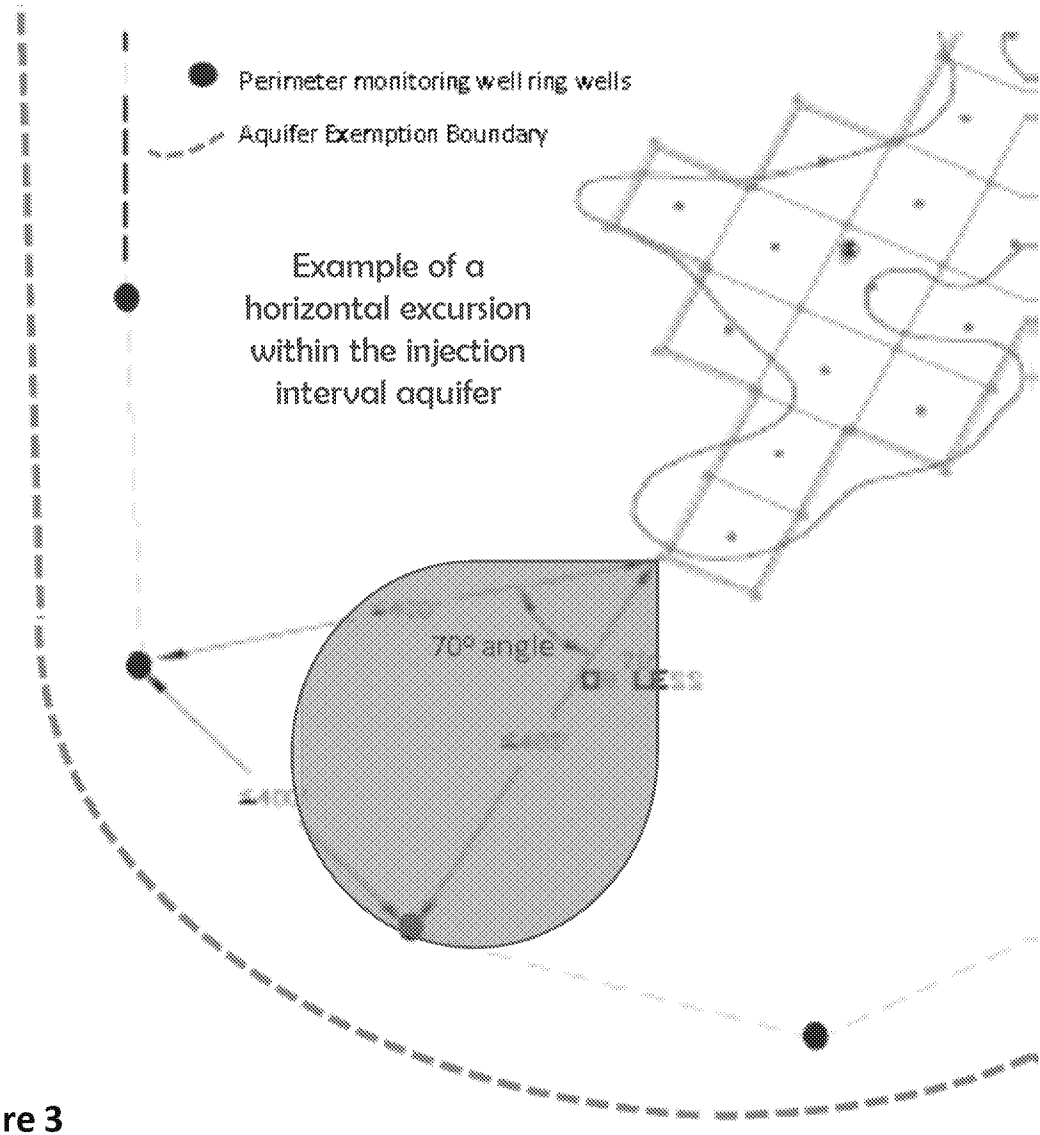


Figure 3

Post-restoration Monitoring

1. Post-restoration monitoring plan includes establishing a down-gradient compliance boundary.
2. Groundwater baseline constituent concentrations are used as the permit limits for determining that no ISR contaminants cross the aquifer exemption boundary.
3. After the Nuclear Regulatory Commission approves wellfield groundwater restoration under the NRC license, the EPA UIC Class III permit requires Powertech to demonstrate that no ISR contaminates cross the down-gradient compliance boundary.
4. This requirement is new to the ISR industry.
5. If ISR contaminants are detected at the down-gradient compliance boundary, the Permittee must establish a new boundary and perform remediation.
6. It is a permit violation if ISR contaminants cross the aquifer exemption boundary and groundwater remediation is required.

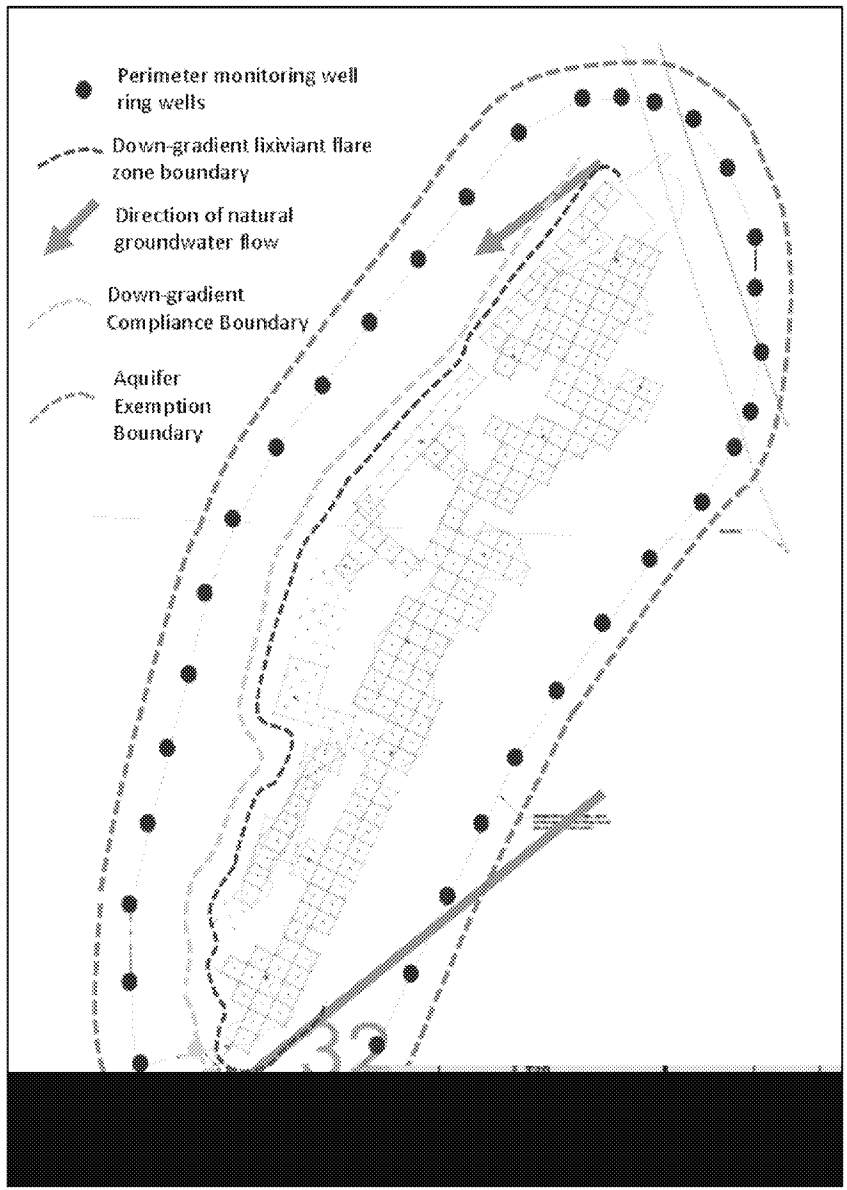
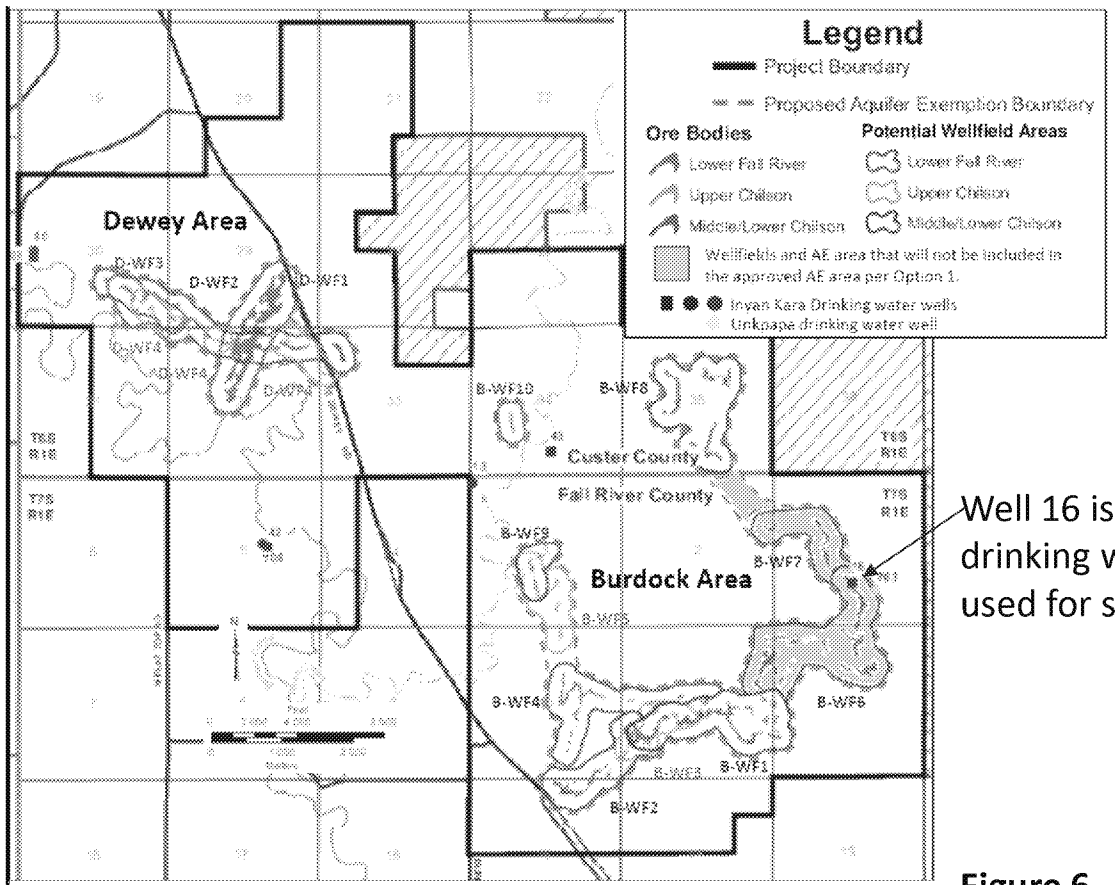


Figure 5

Two Options for Aquifer Exemption Approval



Well 16 is a former private drinking water well that is now used for stock watering only.

Figure 6

GEOLOGIC CROSS SECTION
SHOWING ALL INJECTION ZONES

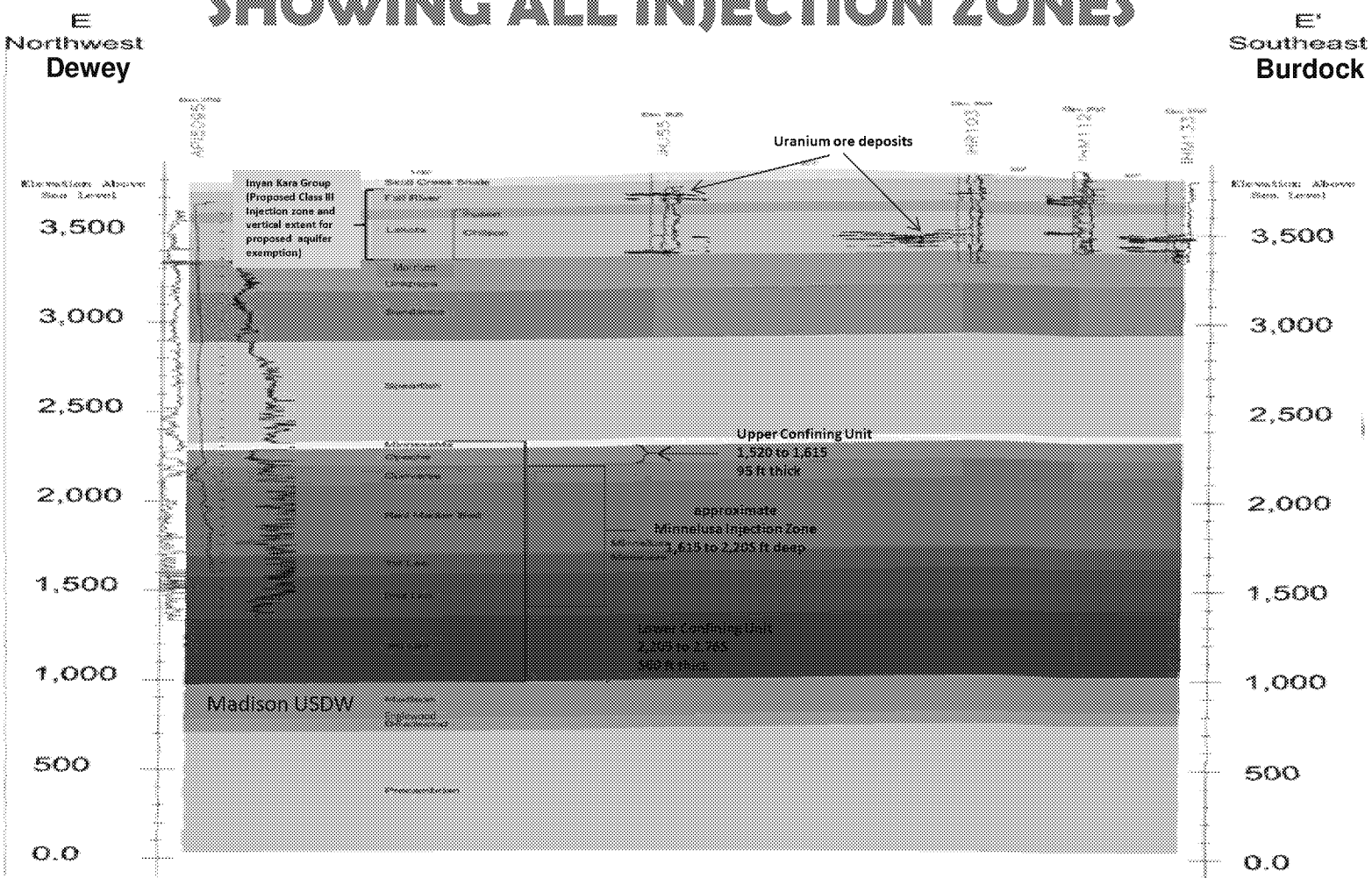


Figure 7